

## ABSTRACT

An optical attenuator (10) includes: an optical splitter (11), a collimator (12), two detectors (51, 52), a first and second reflectors (21, 22), an attenuating element (3) and a driving device (4). The optical splitter includes a ferrule (112) and a GRIN (graded index) lens (113). The collimator is similar to the optical splitter. Input optical signals are transmitted from an input fiber (110) through the optical splitter and are then directed to the first reflector. The optical signals reflected by the first reflector pass through the attenuating element and are subsequently reflected to the collimator by the second reflector. The two detectors receive sampling signals via an input and an output sampling fibers (111, 112). The driving device can drive the attenuating element in response to the attenuation ratio coming from the two detectors.